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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/987,568	11/15/2001	Yoshinori Miwa	862.C2438	7349

5514 7590 05/07/2003

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EXAMINER

NGUYEN, HUNG

ART UNIT	PAPER NUMBER
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2851

DATE MAILED: 05/07/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/987,568

Applicant(s)

MIWA, YOSHINORI

Examiner

Hung Henry V Nguyen

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on Amendment filed 3/10/03.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,3-19 and 21-31 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,3-19 and 21-31 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 15 November 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

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DETAILED ACTION

Specification

1. A substitute specification excluding the claims is required pursuant to 37 CFR 1.125(a) because there are 14 pages of amendments to the specification. The interlineations or cancellations made in the specification or amendments to the claims could lead to confusion and mistake during the issue and printing processes.

A substitute specification filed under 37 CFR 1.125(a) must only contain subject matter from the original specification and any previously entered amendment under 37 CFR 1.121. If the substitute specification contains additional subject matter not of record, the substitute specification must be filed under 37 CFR 1.125(b) and must be accompanied by: 1) a statement that the substitute specification contains no new matter; and 2) a marked-up copy showing the amendments to be made via the substitute specification relative to the specification at the time the substitute specification is filed.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claims 26-29 are rejected under 35 U.S.C. 102(b) as being anticipated by Tanimoto et al (U.S. Pat. 4,690,528).

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With respect to claims 26-29, Tanimoto (fig.9) discloses an exposure apparatus/method for exposing a substrate (W) using a master (R) and comprising all of the structures of the instant claim such as: a stage being able to install the master (an inherent element of an exposure apparatus); a first housing (460) for surround the stage where the housing is filled with inert gas (see col.7, lines 64 to line 66 and col.8, lines 5-8); a second housing (484) for stocking at least one of the masters where the second housing is inside of the first housing/or allowed to communicate with the first housing via a door facing to the interior of the first chamber (460) and is adapted to be evacuated via a front door facing to the external atmosphere (see col.9, lines 31-43).

4. Claims 1, 18, 21, 24-31 are rejected under 35 U.S.C. 102(b) as being anticipated by Miyaji et al (U.S.Pat. 5,559,584).

With respect to claims 1, 18, 21, 24-31, Miyaji et al discloses an exposure apparatus for transferring a predetermined pattern formed on a reticle onto a substrate, and comprising all basic features of the instant claims including: a stage (RT) being able to install a master (R); a first housing (1) surrounding the master stage; a second housing (13) for stocking at least one of the masters, the second housing being allowed to communicate with the first housing via shutter S1 and shutter S2; a third housing (12) being installed between an inside space and an outside space of the first housing (one door of shutter S1 located inside of the housing 1, as clearly illustrated in figure 5); wherein the master is transferred to the first housing and is extracted from the second housing via the third housing and wherein the first and second housing are filled by an inert gas or are adapted to be evacuated (see col.9, lines 5-32).

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Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 1, 3-17, 21, and 30-31 are rejected under 35 U.S.C. 103(a) as being unpatentable over Suenaga et al (U.S.Pat. 6,451,507) in view of Miyaji (U.S.Pat. 5,559,584).

With regard to claims 1, 3-17, 21 and 30-31, Suenaga et al (fig.4) discloses an exposure apparatus for transferring a predetermined pattern formed on a reticle onto a substrate comprising substantially all structures of the instant invention as claimed including: a first chamber (170) for surrounding an exposure position of the reticle (R); a second housing (210) for stocking the reticle; and a third housing for (174) for housing the reticle which is transferred between inside and outside of the first housing wherein the interiors of the first and third housing are detected and controlled to a predetermined temperature (see col.18, lines 26 thru col.19, line 50), and the reticle transferred from the outside of the first chamber (170) via the third housing is stocked by the second housing (see fig.4). Each of housing comprises opening/or closing means (173, 177 for instance); the second housing has a shelf like structures for stocking a plurality of reticles; the exposure apparatus includes alignment means for aligning the master (see col.6, lines 1-13) and transfer means for transferring the reticle between the housings (see fig.4). Suenaga further teaches the predetermined temperature including an inert gas atmosphere (see col.12, lines 1 thru col.16, line 42 and col.18, lines 53-60) and the atmosphere is controlled by a

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circulation system via concentration sensors (137A-137D) and the exposure light source includes an F2 excimer laser (see col.15, line 17). Suenaga does not specifically disclose the third housing being installed between an inside space and an outside space of the first housing and the second housing being filled by an inert gas or adapted to be evacuated. Miyaji discloses an exposure apparatus having a first housing (1) surrounding the master stage; a second housing (13) for stocking at least one of the masters, the second housing being allowed to communicate with the first housing via shutter S1 and shutter S2; a third housing (12) being installed between an inside space and an outside space of the first housing wherein the master is transferred to the first housing and is extracted from the second housing via the third housing and wherein the first and second housing are filled by an inert gas or are adapted to be evacuated (see col.9, lines 5-32). It would have been obvious to one having ordinary skill in the art at the time the invention was made to combine the teachings of Suenaga and Miyaji to obtain the invention as specified in the above claims. It would have been obvious to a skilled artisan to arrange the housings of the exposure device of Suenaga where the third housing is placed between an inside space and an outside space of the first housing as taught by Miyaji for at least the purpose of simplification of structures and/or the transportation of the reticle between the exposure position and the stocking is not complicated. Further, it has been held that rearranging parts of an invention involves only routine skill in the art. *In re Japikse*, 86 USPQ 70. Further, it would have been obvious one having ordinary skill in the art to fill the first and second housing with an inert gas or to evacuate the first and second housing for keeping the reticle from being damaged and being contaminated whereby the quality of the images is improved.

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7. Claims 18-19, 22-25 are rejected under Claims 22-28 are rejected under 35 U.S.C. 103 (a) as being unpatentable over Suenaga et al (U.S.Pat. 6,451,507) in view of Miyaji (U.S.Pat. 5,559,584) and further in view of Umatate et al (U.S.Pat. 5,243,377).

With regard to claims 18-19, 22-25, Suenaga et al as modified by Miyaji et al discloses an exposure apparatus/method comprising substantially all of the limitations of the instant claims as discussed except for the apparatus being connected to a computer/and or a local area network. Umatate et al discloses a plural exposure apparatuses and a host system (H-COM), a network interface, a computer and the information relating to each of the exposure apparatuses can be communicated by a computer network (see fig. 1). It would have been obvious to one having ordinary skill in the art at the time the invention was made to combine the teachings of Suenaga as modified by Miyaji and Umatate to obtain the claimed invention. It would have been obvious to a skilled artisan to employ a computer network/LAN as taught by Umatate for the exposure apparatus/method of Suenaga as modified by Miyaji for the purpose of managing, analyzing, maintenance and troubleshooting of the exposure apparatus and thus improving the operation of the device.

Response to Amendment

8. Applicant's amendments to the claims have been entered. Claims 1, 3, 4, 6, 10, 11, 14, 16, 18, 21 and 23-29 have been amended. Claims 2 and 20 have been cancelled and new claims 30-31 have been added. Applicant's arguments with respect to the prior art have been carefully considered but have been traversed in view of new grounds of rejection as set forth above.

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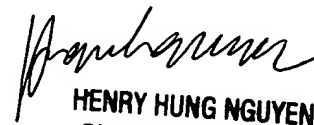
9. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Hung Henry V Nguyen whose telephone number is 703-305-6462. The examiner can normally be reached on Monday-Friday (First Friday off).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Russ Adams can be reached on 703-308-2847.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-305-4900.


HENRY HUNG NGUYEN
PRIMARY EXAMINER

hvn
May 2, 2003